

# Lesson 9: Create Word Problems

## Standards Alignments

Addressing 4.NBT.B, 4.NBT.B.4, 4.NBT.B.5, 4.NBT.B.6, 4.OA.A.3

### Teacher-facing Learning Goals

- Write and solve multi-step word problems using the four operations.

### Student-facing Learning Goals

- Let's write our own word problems.

## Lesson Purpose

The purpose of this lesson is for students to create their own mathematical questions and word problems given constraints (specific values, possible operations).

In this lesson, students reason about solutions in order to create multi-step problems. Each problem structure is open, allowing students to reason flexibly about numbers and the questions being asked. The intent is for them to exercise the skill of discerning the question when solving problems. As students work, allow them the space to make sense of problems, without providing strategies or steps. After each activity, students reflect on the skills and practices they used to create their questions.

If students need additional support with the concepts in this lesson, refer back to Unit 6, Section D in the curriculum materials.

### Access for:

#### Students with Disabilities

- Representation (Activity 1)

#### English Learners

- MLR8 (Activity 1)

## Instructional Routines

Number Talk (Warm-up)

### Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	20 min

### Teacher Reflection Question

As students worked together today, where did you see evidence of the mathematical community established over the course of the school year?

Lesson Synthesis 10 min

Cool-down 5 min

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## Cool-down (to be completed at the end of the lesson)

 5 min

### A Music Festival

#### Standards Alignments

Addressing 4.NBT.B.4, 4.NBT.B.5, 4.NBT.B.6, 4.OA.A.3

#### Student-facing Task Statement

The school band wants to raise \$1,700 for a music festival. They have raised \$175 each week for the past 6 weeks.

Write a question that could be asked about this situation and answer it. Show your reasoning.

#### Student Responses

Sample response:

- Question: If the band keeps raising \$175 each week, how many more weeks before it reaches its goal?
- Answer: 4 weeks. In 6 weeks it raises \$1,050, so it still needs to raise \$650. Three more weeks mean an additional  $3 \times 175$  or \$525. So one more week would mean  $525 + 175$  or \$700.